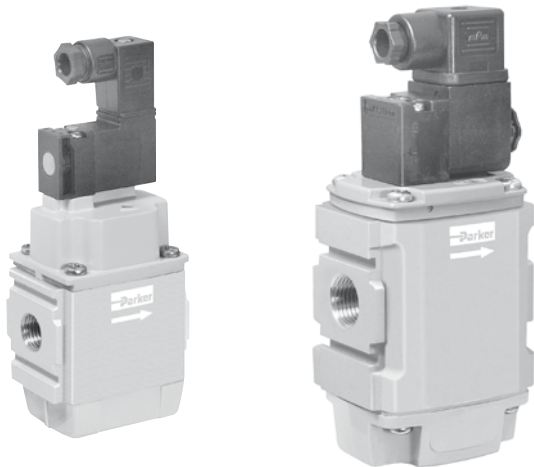
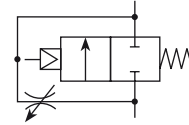


**Global Air Preparation System**

**Soft Start Valve**



**Symbols**



- Modular design with 1/4" or 1/2" integral ports (NPT, BSPP & BSPT)
- The 2-way, 2-position function provides for the safe introduction of pressure
- Adjustable slow start
- Solenoid or air pilot options
- High flow

Parker Global Series Soft Start Valves, provide for the safe introduction of pressure to machines or systems. Soft Start Valves, allow the pressure to gradually build to the set point before fully opening to deliver full flow at line pressure.

The controlled introduction of pressure can be an important safety factor and prevent damage to tooling when air pressure is introduced at machine or system start up.

**Note:** Soft Start Valves must be installed downstream of a 3/2 valve with exhaust capability

**Options:**

<b>P 3</b>	<b>S *</b>	<b>N</b>	<b>Solenoid type only</b>	
<b>Body size</b>	<b>Port size</b>	<b>Pilot type</b>	15mm (P31 series only)	<b>C</b>
Mini (1/4") <b>1</b>	Mini (1/4") <b>2</b>	External Air Pilot <b>P</b>	30mm CNOMO coil (P32 only)	<b>A</b>
Compact (1/2") <b>2</b>	Compact (1/2") <b>4</b>	Solenoid Pilot <b>S</b>	30mm CNOMO coil (M12 connection) (P32 only)	<b>D</b>
<b>Thread Type</b>		Internal Air Pilot <b>Y</b>		
BSPP (G) <b>1</b>				
BSPT <b>2</b>		<b>Actuator interface</b>		
NPT <b>9</b>		Internal Pilot <b>0</b>		24VDC non locking manual override <b>2CN</b>
		15mm solenoid (P31 only) <b>G</b>		120VAC non locking manual override <b>3GN</b>
		30mm solenoid <b>C</b>		120VAC non locking manual override (P31 series only) <b>1FN</b>
		Threaded air pilot <b>P</b>		

**Note:** P32 unit used for both P32 & P33 series

\* Engineering Level will be entered at factory.

**Soft start valve**

Port size	Description	Order Code†	Flow dm <sup>3</sup> /s (scfm)	Max. bar (psig)	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Weight
1/4"	120VAC Solenoid & cable plug	<b>P31S*92SGNC1FN</b>	17 (36)	10 (150)	115.6 (4.5)	57 (2.2)	40 (1.5)	0.37kg (0.8lbs)
1/4"	24VDC Solenoid & cable plug	<b>P31S*92SGNC2CN</b>	17 (36)	10 (150)	166.0 (6.5)	57 (2.2)	40 (1.5)	0.41kg (0.9lbs)
1/4"	Internal air pilot operated	<b>P31S*92Y0N</b>	17 (36)	17 (250)	115.6 (4.5)	57 (2.2)	40 (1.5)	0.37kg (0.8lbs)
1/4"	External air pilot (1/8" threaded)	<b>P31S*92PPN</b>	17 (36)	17 (250)	115.6 (4.5)	57 (2.2)	40 (1.5)	0.37kg (0.8lbs)
1/2"	120VAC 30mm coil & cable plug incl.	<b>P32S*94SCNA3GN</b>	48 (101)	10 (150)	162.5 (6.3)	88 (3.4)	57.2 (2.28)	0.87kg (1.5lbs)
1/2"	24VDC 30mm coil & cable plug	<b>P32S*94SCNA2CN</b>	48 (101)	10 (150)	227.5 (8.9)	88 (3.4)	57.2 (2.28)	0.90kg (2.0lbs)
1/2"	Internal air pilot operated	<b>P32S*94Y0N</b>	48 (101)	17 (250)	162.5 (6.3)	75 (2.9)	57.2 (2.28)	0.90kg (2.0lbs)
1/2"	External air pilot (1/8" threaded)	<b>P32S*94PPN</b>	48 (101)	17 (250)	162.5 (6.3)	75 (2.9)	57.2 (2.28)	0.87kg (1.5lbs)

† Standard part numbers shown in bold. For other models refer to Options chart above.

Parker Dystrybutor:

**ARA**<sup>®</sup>

**PNEUMATIK**

53-012 Wrocław tel. 71 364 72 82  
ul. Wyścigowa 38 fax 71 364 72 83

www.arapneumatik.pl



**Global Air Preparation System**

**Technical Information**

Fluid:	Compressed air	
Max. pressure Solenoid operated:	10 bar (150 psig)	
Max. pressure Air Pilot operated:	17 bar (250 psig)	
Min. operating pressure:	3 bar (44 psig)	
Temperature Max.* Solenoid operated:	-10°C to 50°C (14°F to 122°F)	
Temperature Max.* Air Pilot operated:	-20°C to 80°C (-4°F to 176°F)	
Air Pilot port:	1/8"	
Typical flow with 6.3bar inlet pressure and 1 bar pressure drop:	<b>P31S</b>	17 dm <sup>3</sup> /s (36 scfm)
	<b>P32S</b>	48 dm <sup>3</sup> /s (101 scfm)

\* Air supply must be dry enough to avoid ice formation at temperatures below +2°C  
Snap pressure: Full flow when downstream pressure reaches 50% of the inlet pressure

**Material Specification**

Body:	Aluminum
Body cover:	Polyester
Seals:	Nitrile NBR

**Mounting Brackets**

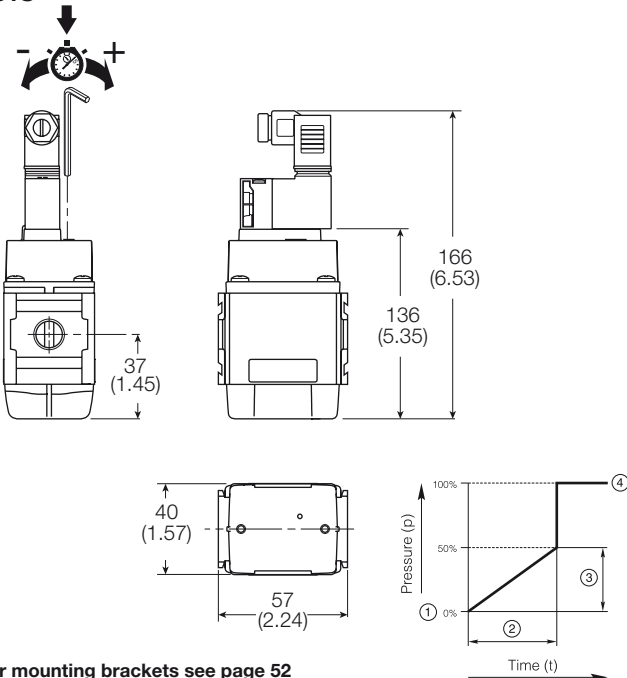
Description	Order code
	<b>P31S</b>
L-Bracket mounting kit	<b>P3HKA00ML</b>
Foot bracket mounting kit	<b>P3HKA00MC</b>

**Note:**

For solenoid operators and cable plugs (connectors) see pages 68 to 69.

**Dimensions mm (inches)**

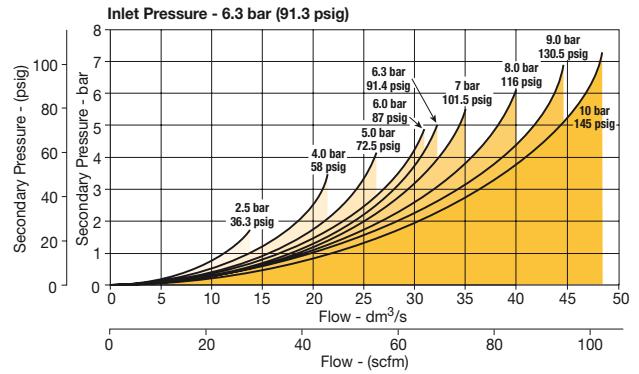
**P31S**



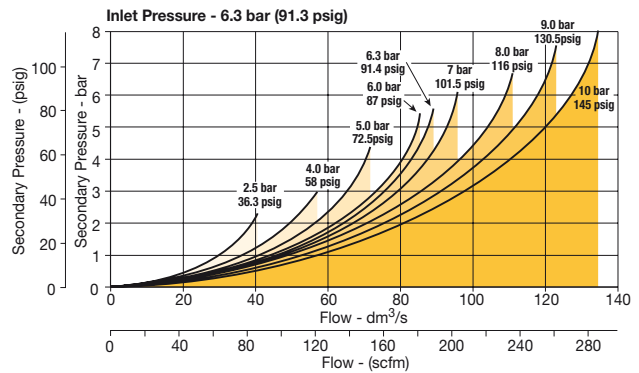
For mounting brackets see page 52

**Flow characteristics**

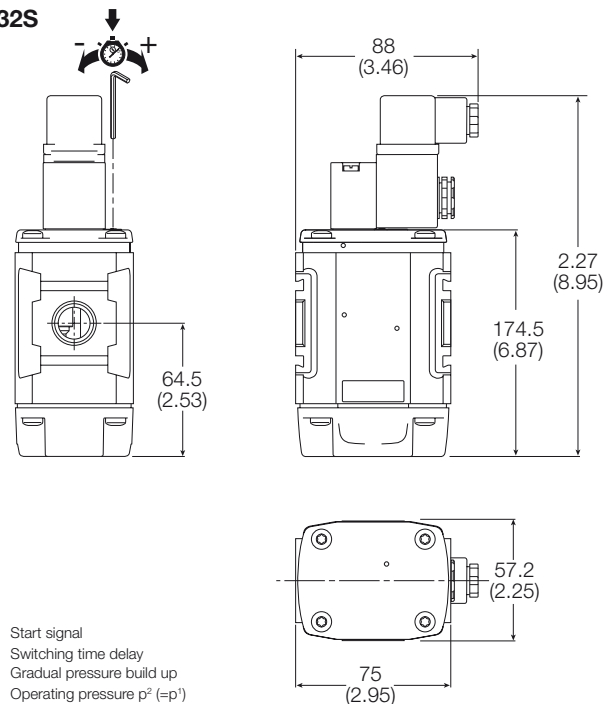
**1/4 Soft Start Valve**



**1/2 Soft Start Valve**



**P32S**



- ① Start signal
- ② Switching time delay
- ③ Gradual pressure build up
- ④ Operating pressure p<sub>2</sub> (=p<sub>1</sub>)



Global Air Preparation System

Solenoid Operator - CNOMO

Technical data - Solenoid operators, coil combinations

	NC Normal Operator with 15mm standard coil	NC Normal Operator with 22 x 30 standard coil	NC Normal Operator with 30 x 30 standard coil
Working pressure	0 to 10 bar	0 to 10 bar	0 to 10 bar
Ambient temperature	-15°C to 60°C *	-10°C to 60°C *	-10°C to 60°C *
Power (DC)	1.2W	4.8W	2.7W
Power (AC)	1.6VA	8.5VA	4.9VA
Voltage tolerance	+10%/-15%	+/-10%	+/-10%
Duty cycle	100%	100%	100%
Insulation class	F	F	F
Electric connection	ISO 15217	B Industrial	DIN 43650A
Protection	IP65	IP65	IP65
Approval	UL/CSA		UL/CSA
Working media	All neutral media such as compressed air and inert gases.		

\* limited to 50°C if use with 100% duty cycle

Transients

Interrupting the current through the solenoid coil produces momentary voltage peaks which, under unfavourable conditions, can amount to several hundred times the rated operating voltage. Normally, these transients do not cause problems, but to achieve the Maximum life of relays in the circuit (and particularly of transistors, thyristors and integrated circuits) it is desirable to provide protection by means of voltage-dependent resistors (varistors). All connectors/cable plugs EN175301-803 with LED's include this type of circuit protection.

Materials

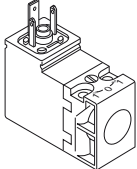
Pilot Valve

Body:	Polyamide
Armature tube:	Brass
Plunger & core:	Corrosion resistant Cr-Ni steel
Seals:	Fluorocarbon
Screws:	Stainless steel

Coil

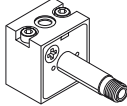
Encapsulation material:	Thermoplastic as standard Duroplast for M12 connection
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P31 Series only - Solenoid coils 15mm NC

	Voltage	Order code Override, blue, non locking flush	Weight (Kg)
	24VDC	<b>PS2982B49P</b>	0.038
115VAC 50Hz / 120VAC 60Hz	<b>PS2982B53P</b>	0.038	

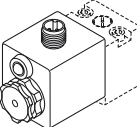
Spare solenoid operators

Base Solenoid pilot operator CNOMO NC

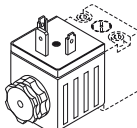
	Description	Order code Non-lock manual override	Weight (Kg)
	Standard Duty	<b>P2FP23N4B</b>	0.065
No Override	<b>P2FP23N4A</b>	0.065	

**Note:** Solenoid pilot operators are fitted to the Global range. Order the above part numbers for spares. The operators are supplied with mounting screws and interface 'O' rings. **Coils and connectors must be ordered separately.**

Solenoid coils with M12 connection

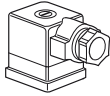
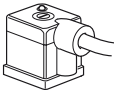
	Voltage	Order code	Weight (Kg)
	Direct current	24VDC	<b>P2FC6449</b>

Solenoid coils with Din A or Industrial B connection

	Voltage	22mm x 30mm Order code B Industrial Standard	Weight (Kg)	30mm x 30mm Order code DIN 43650A Standard	Weight (Kg)
	Direct current	24VDC	<b>P2FCB449</b>	0.093	<b>P2FCA449</b>
Alternative current	110V 50Hz, 120V 60Hz	<b>P2FCB453</b>	0.093	<b>P2FCA453</b>	0.105

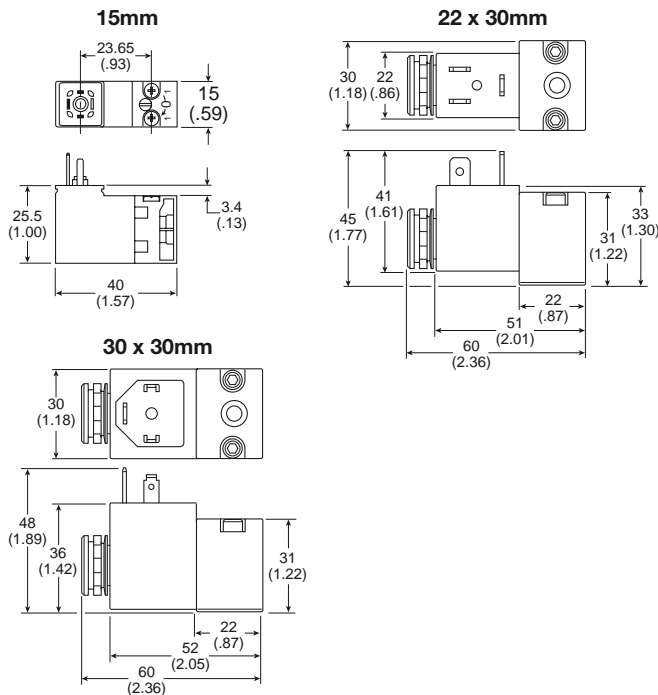
Global Air Preparation System

Solenoid connectors / Cable plugs EN175301-803

	Description	Order code 15mm Form C ISO15217	Order code 22mm Form B Industrial	Order code 30mm Form A DIN 43650A
With standard screw 	Standard IP65 without flying lead	<b>PS2932BP</b>	<b>PS2429BP</b>	<b>PS2028BP</b>
	With LED and protection 24VAC/DC	<b>PS294679BP</b>	<b>PS243079BP</b>	<b>PS203279BP</b>
	With LED and protection 110VAC	<b>PS294683BP</b>	<b>PS243083BP</b>	<b>PS203283BP</b>
With cable 	Standard with 2m cable IP65	<b>PS2932JBP</b>	<b>PS2429JBP</b>	<b>PS2028JCP</b>
	24VAC/DC, 2m cable LED and protection IP65	<b>PS2946J79BP</b>	<b>PS2430J79BP</b>	<b>PS2032J79CP</b>
	110VAC/DC, 2m cable LED and protection IP65	<b>PS2946J83BP</b>	<b>PS2430J83BP</b>	<b>PS2032J83CP</b>

Solenoid coil

Dimensions mm (inches)



Electrical schematics

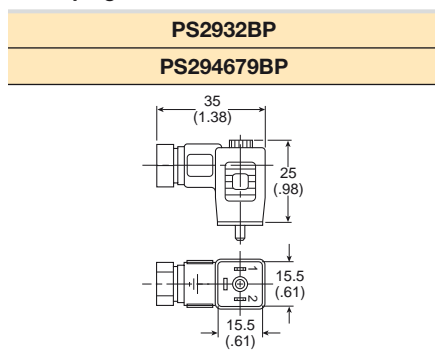


<b>PS2028BP</b>	<b>PS243079BP</b>	<b>PS203279BP</b>
<b>PS2028JCP</b>	<b>PS2430J79BP</b>	<b>PS2032J79CP</b>
<b>PS2429BP</b>	<b>PS243083BP</b>	<b>PS203283BP</b>
<b>PS2429JBP</b>	<b>PS2430J83BP</b>	<b>PS2032J83CP</b>
<b>PS2932BP</b>	<b>PS294679BP</b>	<b>PS294683BP</b>
<b>PS2932JBP</b>	<b>PS2946J79BP</b>	<b>PS2946J83BP</b>

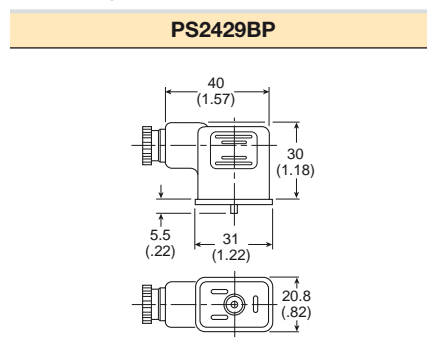
Cable plug

Dimensions mm (inches)

15mm ISO 15217  
Cable plugs



22mm Form B Industrial  
Cable plugs



30mm DIN 43650A  
Cable plugs

